# Hidex Q-ARE 100





Don't spend the whole day staring at columns. Free up your time by automating your radionuclide extractions.

In order to characterize the radioactivity from environmental and decommissioning samples, three stages are essential: sample pretreatment, chemical separation and analysis. For the analysis of alpha and beta radionuclides, the extraction chromatography is the representative separation method. Historically gravity was used for the process. Currently vacuum boxes have been used to increase the speed.

Hidex Q-ARE 100 introduces increased process time and complete walkaway automation.





## Quick and Automated Radionuclide Extraction System Q-ARE 100 can help you



## Automated Radionuclide Extraction System

The most advanced automatic extraction chromatography system dedicated to radionuclide separation function. Quick and easy-to-use unattended radionuclide extraction system. User friendly, intuitive, hassle-free

#### Automatic

- Manual operation is not required so no one needs to watch or care it.
- Flow rate can be automatically controlled following user's need.
- Ultimately, it will reduce preparation time.

#### Compact

- Safety oriented compact design with acrylic doors keeps you safe and enable space utilize.
- With this clean & compact look, your desk will have much more space.

#### Convenient

• With one sample, up to 5 targeted radionuclides can be extracted. Application



- + Automatically controlled washing, equilibrium and elution steps
- + Fume-free safety oriented design
- + Live displayed process



#### Purify your target radionuclides easily. Simple, convenient, intuitive and prompt!

Simply choose a column tailored for your needs and select the preprogrammed protocol for the column. All common purification techniques such as extraction and ion-exchange are supported with perfect combination of four operation mode.

#### Single or Tandem Column Mode

Both Single and Tandem mode have the same operation so it is very easy to use. You can simply choose Single or Tandem mode according to the sample. By programming column, valve, pump, flow rate and reagent for each step, up to eight samples can be simultaneously automatically separated / purified.



Using THOMAS\* Peristaltic pump, each column's flow rate can be individually controlled.

With these pumps and columns, it provides with diverse separation methods.

#### Columns

Each column's flow rate can be individually controlled. Simply choose a column, fill the column with Triskem\* & Eichrom\* resin, select the protocol for your need.

### Specifications Q-ARE 100

No. of Pump Speed Flow rate(typically) Operating flow rate Motor

Material of the hose clip Nominal voltage Max. suction height Max. pressure height Max. ambient temperature Media temperature

Solenoid valve function

No. of port Orifice size Body Diaphragm Internal volume

8 0.4 ~ 300 rpm 0.1~55ml/min. 0.1~10ml/min. Stepper motor, bipolar, stepping angle 1.8° PVDF 24V/DC 8 m H2O 10 m H2O 40°€ 50°C (short time 90°C) DC 24V, CoolCube-R (Bio-Chem\*) applied Provides Hit and Hold function Reduces power consumption a holding state Bio-Chem\* flow selection valve 2, 4, 6-port 0.062″ PEEK PTFE 2-port: 27/15 (Com. Port / Inlet Port 4-port: 117/35 (Com. Port / Inlet Po 6-port: 207/35 (Com. Port / Inlet Po PTFE, PEEK, ETFE

THOMAS\* Peristaltic pump

	Acceptable Columns	2~20ml column(PP or glass) compatible with columns of Triskem*& Eichrom*
	Target Radionuclides	Am, Cm, Pu, U, Th, Sr, Pb, Po, Ra-226, Ra-228, etc.
	Number of Inlet	
	Solvent delivery	8
	Washing	8
	Number of Outlet	
	Sample fractionation	8
	Waste	8
	Max. No. of operating columns	
	No. of reagent port	12
	No. of sample collection	Max. 40
ı at	Acceptable sample	10, 50ml Tube and 20ml collec tion bottle scintillation Vial
	Large volume sample (more than 50ml) port	8
5	Operating Temperature	+4°C to 40°C
	Output	USB port
	Operating system(OS)	Windows 10
-)	Power	110-240V AC, 50/60Hz
., ort)	Dimensions(WxDxH)	88x56x65cm
ort)	Weight	45kg

Tube/Fitting material

### About Hidex



Hidex is a family owned high technology company which develops and manufactures high performance analysis equipment for life science research, nuclear measurements and nuclear medicine. Our products utilize modern technology and excellent tradition of workmanship. With strong links to the scientific community we continue to innovate and develop to improve scientific research and safety of everyday life.

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